

We claim:

- 5 1. A catalyst suspension for the ring-opening polymerization of alkylene oxides, comprising
- 10 a) at least one multimetal cyanide compound having a crystalline structure ~~and a~~ content of platelet-shaped particles of at least 30% by weight, based on the multimetal cyanide compound, and/or
- 15 b) at least one organic complexing agent
c) water and/or
d) at least one polyether and/or
e) at least one surface-active substance, with the proviso that at least component a) and at least two of the components b) to e) have to be present.
- 20 2. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has a cubic crystal structure.
- 25 3. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has a tetragonal crystal structure.
- 30 4. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has an orthorhombic crystal structure.
- 35 5. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has a hexagonal crystal structure.
- 40 6. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has a trigonal crystal structure.
- 45 7. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has a monoclinic crystal structure.
8. A catalyst suspension as claimed in claim 1, wherein at least one of the multimetal cyanide compounds a) has a triclinic crystal structure.

2

9. A catalyst suspension as claimed in claim 1, wherein the organic complexing agent b) is selected from the group consisting of alcohols, ethers, esters, ketones, aldehydes, carboxylic acids, amides, nitriles, sulfides and mixtures thereof.

10. A catalyst suspension as claimed in claim 1, wherein the polyether d) is a polyether alcohol.

11. A catalyst suspension as claimed in claim 1 or 9, wherein the polyether alcohols used are hydroxyl-containing polyaddition products of ethylene oxide, propylene oxide, butylene oxide, vinylloxirane, tetrahydrofuran, 1,1,2-trimethylethylene oxide, 1,1,2,2-tetramethylethylene oxide, 2,2-dimethyloxetane, diisobutylene oxide, α -methylstyrene oxide and mixtures thereof.

12. A catalyst suspension as claimed in claim 1, wherein the surface-active substances e) are selected from the group consisting of C₄-C₆₀-alcohol alkoxylates, block copolymers of alkylene oxides of differing hydrophilicity, alkoxylates of fatty acids and fatty acid glycerides, block copolymers of alkylene oxides and polymerizable acids and esters.

13. A process for preparing polyether alcohols by ring-opening polymerization of alkylene oxides, wherein a catalyst suspension as claimed in claim 1 is used as polymerization catalyst.

14. A polyether alcohol able to be prepared as claimed in claim 13.

35

40

45